

### Claims

1. A vaccine composition comprising an immunoadjuvant compound,  
wherein said immunoadjuvant compound consists of a Rho GTPase  
5 activator.
2. A vaccine composition according to claim 1 wherein said  
immunoadjuvant compound is selected from the group consisting of :
- 10 - a polypeptide comprising the amino acid sequence starting at the  
amino acid residue 720 and ending at the amino acid residue 1014 of  
sequence SEQ ID N°1,
  - a polypeptide comprising the amino acid sequence starting at the  
amino acid residue 720 and ending at the amino acid residue 1014 of  
sequence SEQ ID N°2,
  - 15 - a polypeptide comprising the amino acid sequence starting at the  
amino acid residue 720 and ending at the amino acid residue 1014 of  
sequence SEQ ID N°3,
  - a polypeptide comprising the amino acid sequence starting at the  
amino acid residue 1146 and ending at the amino acid residue 1451  
20 of sequence SEQ ID N°4,
  - a polypeptide comprising the amino acid sequence SEQ ID N°5,
  - a polypeptide comprising the amino acid sequence SEQ ID N°6,
  - a polypeptide comprising the amino acid sequence SEQ ID N°7,
  - a polypeptide comprising the amino acid sequence SEQ ID N°8, and  
25 - a polypeptide comprising the amino acid sequence SEQ ID N°9.
3. A vaccine composition according to claim 1 wherein said  
immunoadjuvant compound is selected from the group consisting of :
- 30 - a polypeptide comprising the amino acid sequence SEQ ID N°1,
  - a polypeptide comprising the amino acid sequence SEQ ID N°2,
  - a polypeptide comprising the amino acid sequence SEQ ID N°3, and
  - a polypeptide comprising the amino acid sequence SEQ ID N°4.

4. A vaccine composition according to claim 1, wherein said immunoadjuvant compound is a protein comprising a polypeptide consisting of; from the N-terminal end to the C-terminal end, respectively:
- 5 a) the injection domain of a Rho GTPase activator , and  
b) the catalytic domain of a Rho GTPase activator.
5. A vaccine composition according to claim 4, wherein said injection domain of a Rho GTPase activator is a polypeptide selected from the group consisting of :
- 10 - a polypeptide comprising the amino acid sequence starting at the amino acid residue 1 and ending at the amino acid residue 719 of sequence SEQ ID N°1;  
- a polypeptide comprising the amino acid sequence starting at the amino acid residue 1 and ending at the amino acid residue 719 of sequence SEQ ID N°2;  
15 - a polypeptide comprising the amino acid sequence starting at the amino acid residue 1 and ending at the amino acid residue 719 of sequence SEQ ID N°3; and  
20 - a polypeptide comprising the amino acid sequence starting at the amino acid residue 1 and ending at the amino acid residue 1145 of sequence SEQ ID N°4.
6. A vaccine composition according to anyone of claims 4 and 5, wherein said catalytic domain of a Rho GTPase activator is a polypeptide selected from the group consisting of :
- 25 - a polypeptide comprising the amino acid sequence starting at the amino acid residue 720 and ending at the amino acid residue 1014 of sequence SEQ ID N°1,  
30 - a polypeptide comprising the amino acid sequence starting at the amino acid residue 720 and ending at the amino acid residue 1014 of sequence SEQ ID N°2,  
- a polypeptide comprising the amino acid sequence starting at the amino acid residue 720 and ending at the amino acid residue 1014 of sequence SEQ ID N°3,  
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- a polypeptide comprising the amino acid sequence starting at the amino acid residue 1146 and ending at the amino acid residue 1451 of sequence SEQ ID N°4,
  - a polypeptide comprising the amino acid sequence SEQ ID N°5,
  - 5 - a polypeptide comprising the amino acid sequence SEQ ID N°6,
  - a polypeptide comprising the amino acid sequence SEQ ID N°7,
  - a polypeptide comprising the amino acid sequence SEQ ID N°8, and
  - a polypeptide comprising the amino acid sequence SEQ ID N°9.
- 10 7. A vaccine composition according to anyone of claim 1-6 comprising further an antigen.
- 15 8. A vaccine composition according to claim 7 wherein the antigen is selected from the group consisting of a hormone, a protein, a drug, an enzyme, a vaccine composition against bacterial, viral, fungal, prion, or parasitic infections, a component produced by microorganisms, inactivated bacterial toxins such as cholera toxin, ST and LT from *Escherichia coli*, tetanus toxin from *Clostridium tetani*, and proteins derived from HIV viruses.
- 20 9. A vaccine composition according to anyone of claims 1-8 for administration to a mucosal surface.
- 25 10. A vaccine composition according to anyone of claims 1-9, for an oral administration.
- 30 11. A protein comprising a polypeptide consisting of; from the N-terminal end to the C-terminal end, respectively :
- a) the injection domain of a Rho GTPase activator according to anyone of claims 4 and 5, and
  - b) the catalytic domain of a Rho GTPase activator according to anyone of claims 4 and 6.
- 35 12. Use of a polypeptide as defined in anyone of claim 1-6 for manufacturing a vaccine composition.

13. Use of a protein according to claim 11 for manufacturing a vaccine composition.

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